

CLAIMS

1. A method for applying a hot melt adhesive in a melted state to a surface of a substrate, the method comprising the steps of:

5 conveying the substrate at a predetermined speed;

rotating an applicator roller covered with the hot melt adhesive in a melted state at a circumferential speed at least 20% slower or at least 20% faster than the predetermined speed at which the substrate is conveyed to cause it to slip; and

contacting one surface of the substrate and the applicator roller;

10 the hot melt adhesive forming an adhesive layer on the substrate.

2. The method for applying a hot melt adhesive to a surface of a substrate according to claim 1, wherein the adhesive layer is formed by applying a plurality of coatings of the hot melt adhesive.

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3. The method for applying a hot melt adhesive to a surface of a substrate according to claim 1, wherein the circumferential speed of the applicator roller is set to be less than the predetermined speed at which the substrate is conveyed, with a speed reduction ratio ranging from 20% to 80% and equal to $(\text{conveying speed of substrate} - \text{circumferential speed of applicator roller}) \times 100 / \text{conveying speed of substrate}$.

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4. A substrate obtained by the method for applying a hot melt adhesive to a surface of a substrate according to claims 1 to 3.

25 5. A device for coating a substrate by applying a hot melt adhesive in a melted

state to a surface of a substrate, the device comprising:

a means for conveying the substrate at a predetermined speed; and

an applicator roller for applying the hot melt adhesive in a melted state, the applicator roller slipping by rotating at a circumferential speed at least 20% slower or at least 20% faster than the predetermined speed at which the substrate is conveyed.

6. The device for coating a substrate according to claim 5, wherein the means for conveying the substrate is a backing roller positioned opposite the applicator roller so as to pinch the substrate or is a conveyor belt with a vacuum chucking mechanism.

7. The device for coating a substrate according to claim 5, wherein the applicator roller comprises a plurality of stages of applicator rollers arranged along the conveying direction of the substrate, with either the rear stage applicator roller positioned downstream in the conveying direction of the substrate or front stage applicator roller positioned upstream in the conveying direction of the substrate being a rubber roller.

8. The device for coating a substrate according to claim 5, wherein nipping mechanisms are provided upstream and downstream in the conveying direction of the applicator roller to nip and convey the substrate.

9. The device for coating a substrate according to claim 8, wherein the nipping mechanism positioned downstream in the conveying direction of the applicator roller is provided with a laminating roller that applies a laminate to the side of the substrate coated with adhesive.

10. A method for producing a laminated object, the method comprising the steps of:
conveying the substrate at a predetermined speed;
contacting one surface of the substrate and the applicator roller;
rotating an applicator roller covered with the hot melt adhesive in a melted state
5 at a circumferential speed at least 20% slower or at least 20% faster than the
predetermined speed at which the substrate is conveyed to cause it to slip; and
applying a laminate on the adhesive layer.
11. The method of producing a laminated object according to claim 10, wherein the
10 adhesive is applied by a plurality of applicator rollers.
12. The method of producing a laminated object according to claim 10, wherein the
substrate is a wood board, the adhesive is a urethane reactive hot melt adhesive, and the
laminate is a film or decorative paper.
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13. The laminated object obtained by the method of producing a laminated object
according to any one of claims 10 to 12.
14. The laminated object of claim 13, in which the laminated object is a decorative
20 panel.